

S.N. 10/029,694 Page 2

AMENDMENTS TO THE CLAIMS

1. (Original) A magnetic memory device comprising:
first and second ferromagnetic layers, each ferromagnetic layer having a magnetization that can be oriented in either of two directions, the first ferromagnetic layer having a higher coercivity than the second ferromagnetic layer; and
a structure for forming a closed flux path with the second ferromagnetic layer.
2. (Original) The device of claim 1, wherein the structure includes a conductor clad with ferromagnetic material, portions of the ferromagnetic material in magnetic communication with the second ferromagnetic layer.
3. (Original) The device of claim 2, wherein all but a surface of the conductor is clad, wherein the unclad surface is in direct contact with the second ferromagnetic layer.
4. (Original) The device of claim 2, wherein portions of the ferromagnetic material define a magnetic gap, the portions in direct contact with the second ferromagnetic layer.
5. (Original) The device of claim 1, wherein the first layer is a data layer, and the second layer is a reference layer.
6. (Original) The device of claim 5, wherein the data layer and the reference layer are made of at least one of different shapes, thickness and ferromagnetic materials.

S.N. 10/029,694 Page 3

7. (Original) The device of claim 1, further comprising an insulating tunnel barrier between the ferromagnetic layers.
8. (Original) The device of claim 1, further comprising a non-magnetic metallic layer between the ferromagnetic layers.
9. (Withdrawn) A method of performing a read operation on the device of claim 1, the method comprising:
 - setting the magnetization orientation of the second layer in a first direction;
 - determining a resistance state of the device;
 - setting the magnetization orientation of the second layer in a second direction;
 - determining a resistance state of the device; and
 - examining the change in resistance states.
10. (Withdrawn) The method of claim 9, wherein the change is examined by determining the direction of resistance state transition.
11. (Original) A device comprising:
 - a magnetic tunnel junction including first and second ferromagnetic layers; and
 - means for forming a closed flux path with one of the ferromagnetic layers.
12. (Original) A structure for a magnetic memory device including a ferromagnetic layer, the structure comprising:
 - an electrical conductor; and
 - ferromagnetic cladding on the conductor, the ferromagnetic cladding forming a closed flux path with the ferromagnetic layer.

S.N. 10/029,694 Page 4

13.(Original) The structure of claim 12, wherein all but a surface of the conductor is clad, wherein the unclad surface is in direct contact with the ferromagnetic layer.

14.(Original) The structure of claim 12, wherein portions of the ferromagnetic cladding define a magnetic gap, the portions in direct contact with the ferromagnetic layer.

15.(Original) The structure of claim 12, wherein the ferromagnetic layer is a reference layer, whereby the cladding forms a closed flux path with the reference layer of the magnetic memory device.

Claims 16-26 (Canceled).